Lab Assignment
& Solution

Cybersecurity Professional Program

Introduction to Python
for Security

File System & Error Handling

PY-04-LS4
Extracting Lines

Note: Solutions for the instructor are shown inside the green box.

Lab Objective

Get used to working with file manipulation in the Python programming language.

Lab Mission

Print text lines from a file.

Lab Duration

10–20 minutes

Requirements

- Basic knowledge of Python

Resources

- Environment & Tools
  - Windows, macOS, Linux
    - PyCharm
    - Python 3
- Extra lab files:
  - ***Lorem Ipsum.txt***

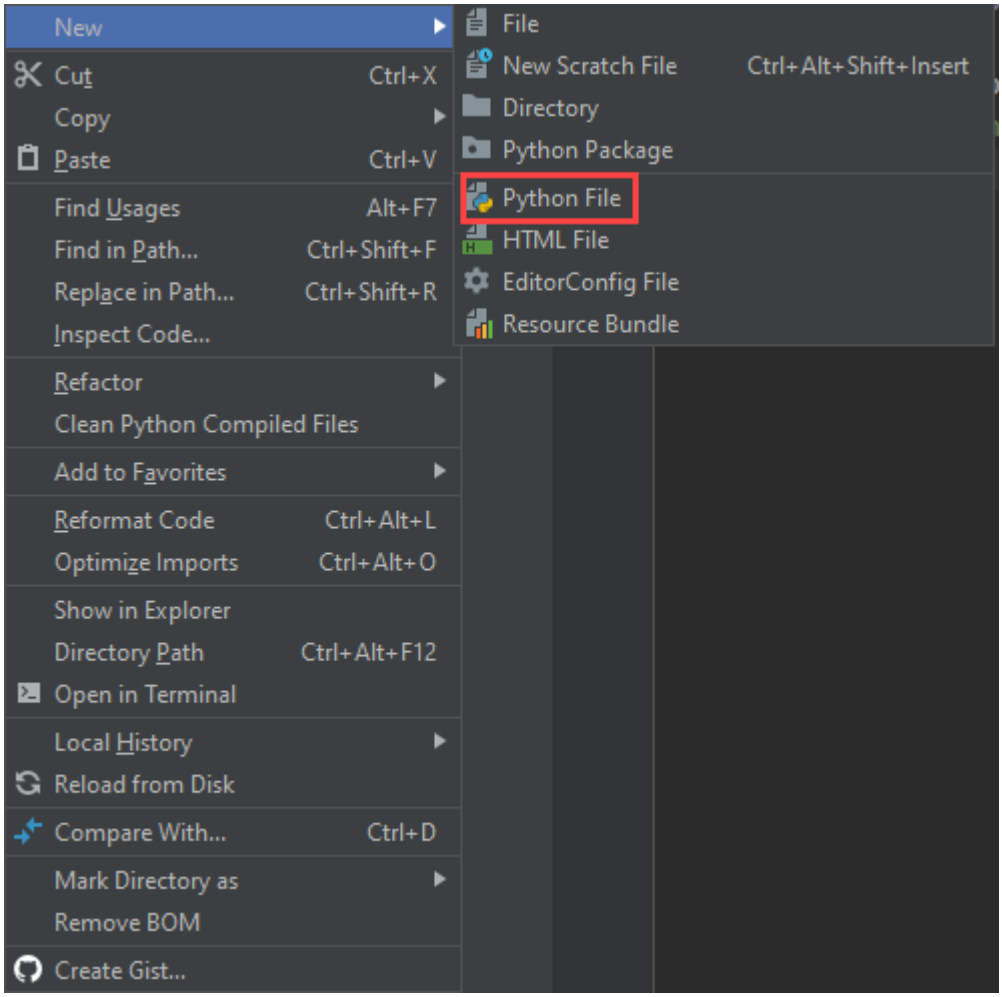
Textbook References

- Chapter 4: File System and Error Handling
    - Section 2: File Manipulation

Lab Task: Extracting Lines with Python

Create a script that will extract text from a file provided by the user and read one line at a time.

1 Create a new Python file in PyCharm by right-clicking the project you created and selecting **New** > ***Python File***.



2 Receive a file path from the user and set it to a variable.

```
path = input("Enter a directory path for the text file:")
```

3 Receive a filename from the user and set it to a different variable.

```
path = input("Enter a directory path for the text file: ")
filename = input("Enter full filename: ")
```

4 Open the file with read permission using the ***open()*** function with the path and filename variables.

```
path = input("Enter a directory path for the text file: ")
filename = input("Enter full filename: ")
#file structure will differ based on OS
file = open(path+"\\"+filename, "r")
```

5 Create a ***for*** loop to print each line in the file.

```
path = input("Enter a directory path for the text file: ")
filename = input("Enter full filename: ")
#file structure will differ based on OS
file = open(path+"\\"+filename, "r")
for line in file:
    print(line)
```

6 Close the file at the end of the loop.

```
path = input("Enter directory path of the song file: ")
filename = input("Enter filename: ")
#file structure will differ based on OS
file = open(path+"\\"+filename, "r")
for line in file:
    print(line)

file.close()

input("\n Press 'Enter' to exit the program")
#prevents program from closing upon execution
```